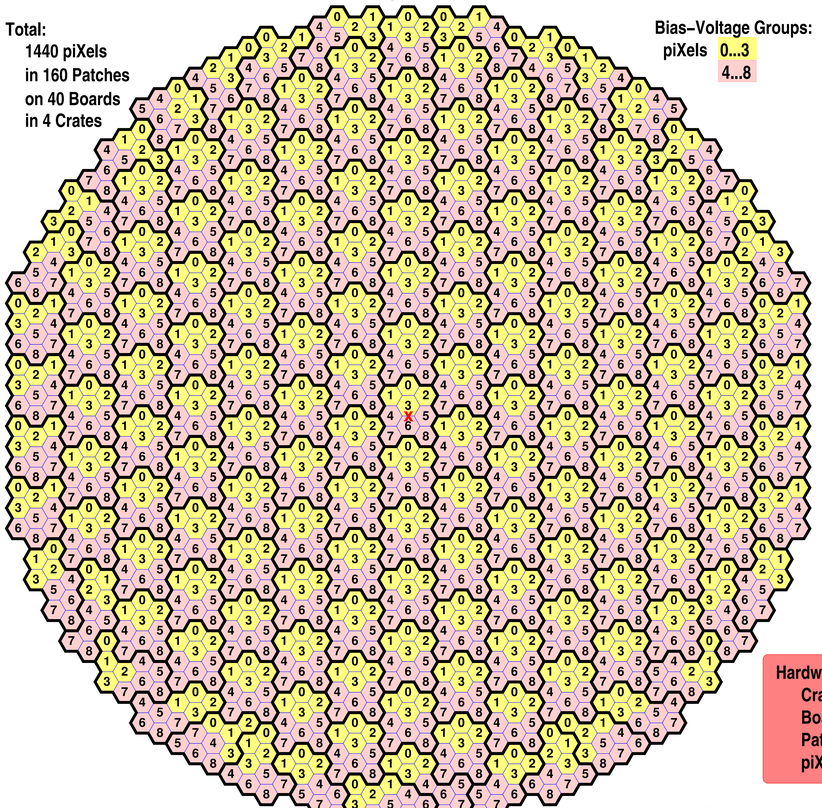
# FACT Pixel Arrangement V9a  Adrian Biland ETHZ  10. Feb. 2010

## piXel Numbering (per Patch): cbpX

Total:
1440 piXels
in 160 Patches
on 40 Boards
in 4 Crates

Bias-Voltage Groups:
piXels 0...3
4...8



Hardware ID: CBPX
Crate: 0...3
Board: 0...9
Patch: 0...3
piXel: 0...8

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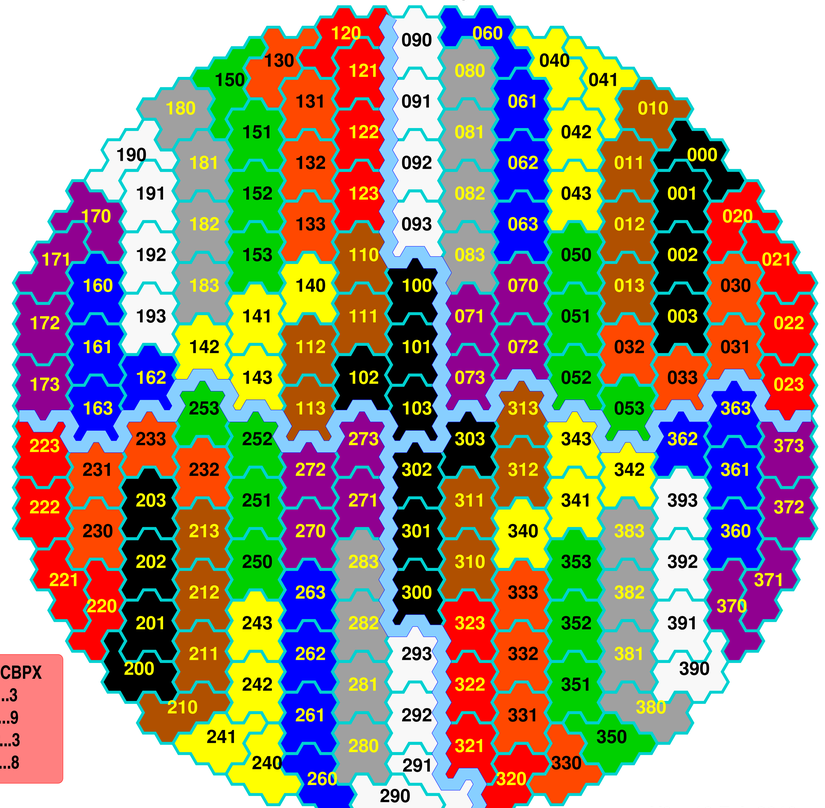
## Patches Numbering: CBPx



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## geom_ID: (ix,iy)

ix
iy

centre of camera between
Pixels (0,0) and (0,1)

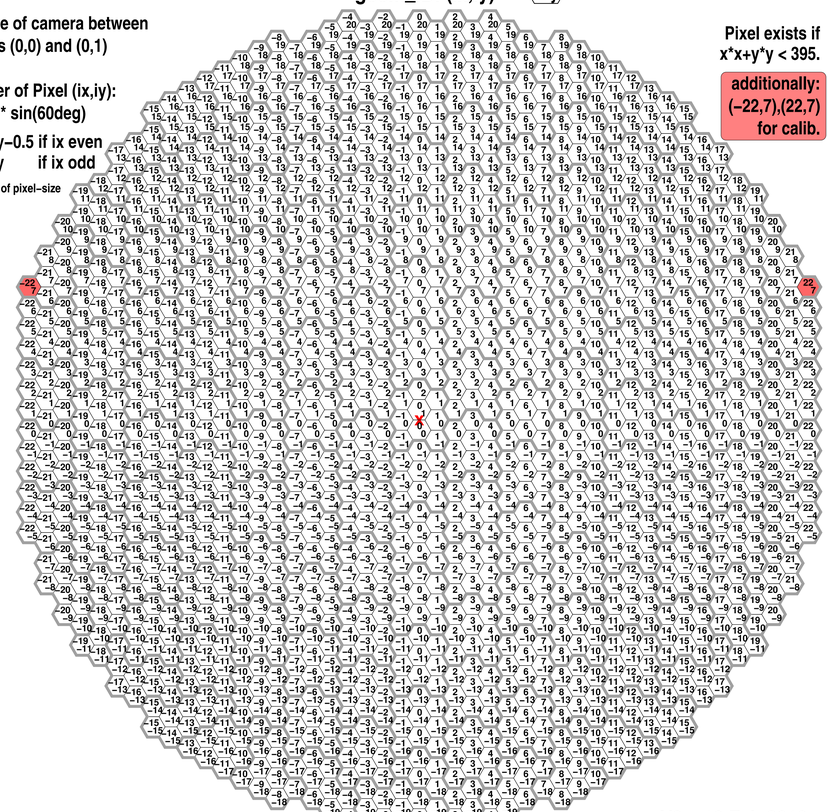
Center of Pixel (ix,iy):
x= ix * sin(60deg)

$y=\begin{cases} iy-0.5 & \text{if ix even} \\ iy & \text{if ix odd} \end{cases}$

in units of pixel-size

Pixel exists if
x*x+y*y < 395.

additionally:
(−22,7),(22,7)
for calib.



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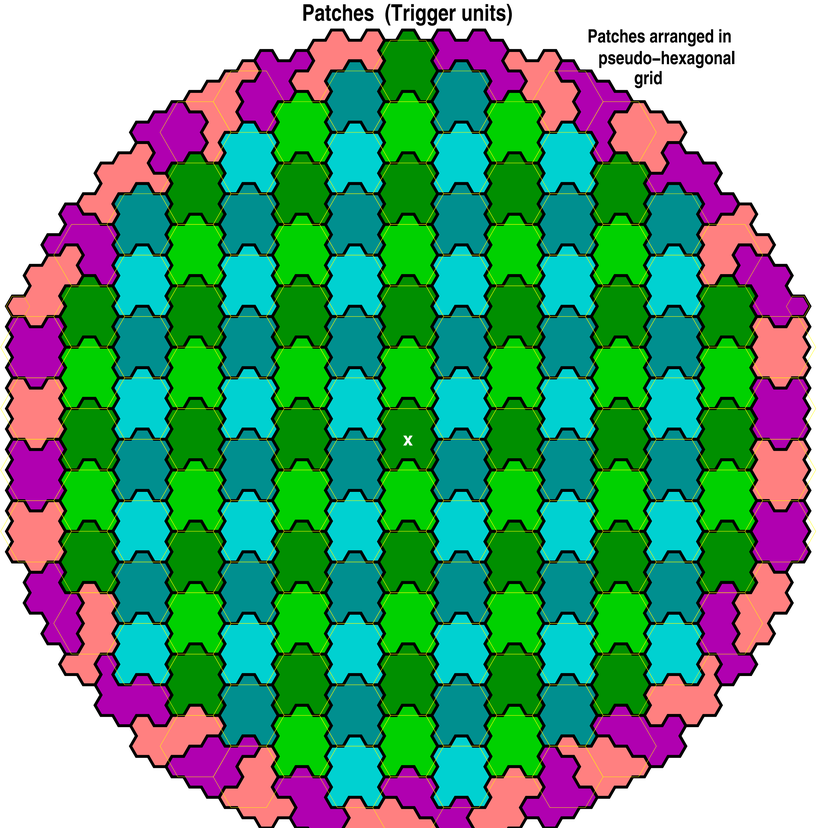
## Patches (Trigger units)

Patches arranged in
pseudo-hexagonal
grid



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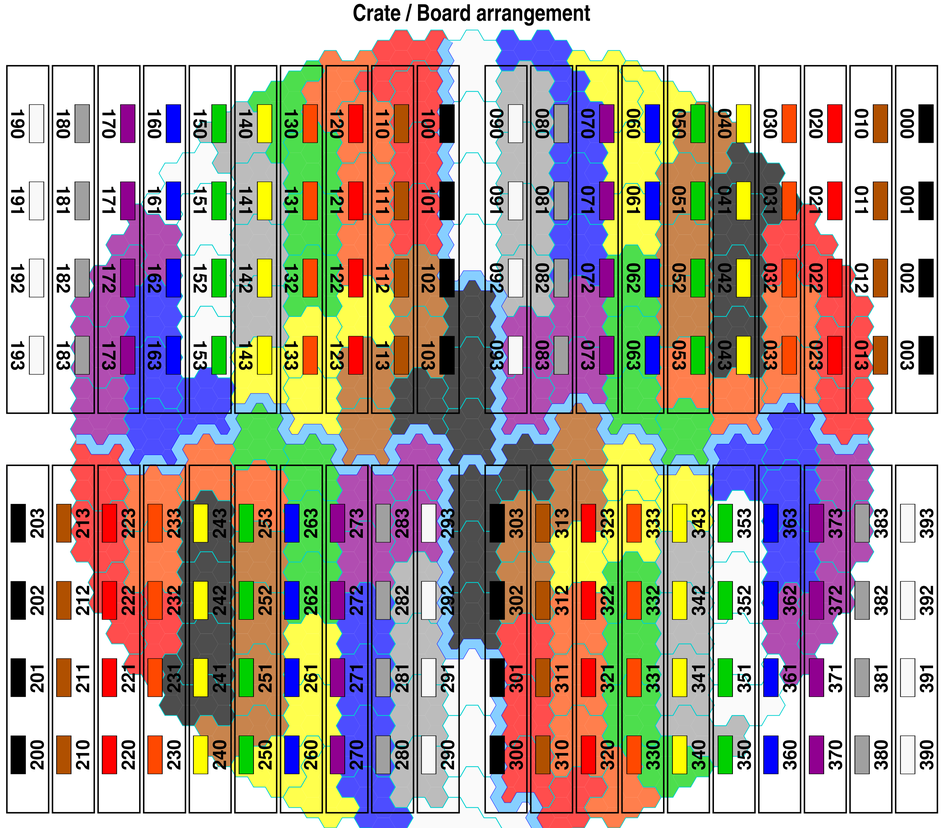
## Crate / Board arrangement



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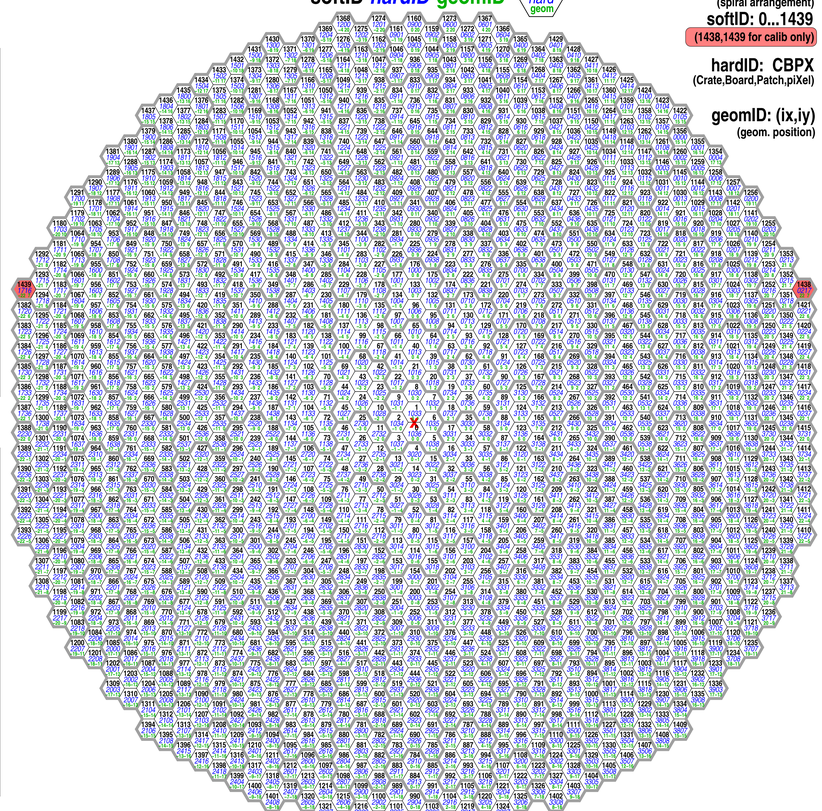
## softID *hardID* geomID

soft
hard
geom

(spiral arrangement)
softID: 0...1439
(1438,1439 for calib only)

hardID: CBPX
(Crate,Board,Patch,piXel)

geomID: (ix,iy)
(geom. position)



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